

WHAT IS CLAIMED IS:

- 1. A deformable mixror comprising:
 - a vertical comb drive, and
 - a reflective surface attached to said vertical comb drive.

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2. The deformable mirror according to claim 1, further comprising a spring for biasing said vertical comb drive to maintain said reflective surface in an original position absent application of a voltage to said vertical comb drive.

The deformable mirror according to claim 1, wherein said vertical comb drive comprises a first array of stationary elements and a second array of moving elements correspondingly interspersed with said first array, said reflective surface being attached to said second array.

- 1 4. The deformable mirror according to claim 3, further comprising 2 a layer covering tops of elements of and second array.
- a layer covering tops of elements of aid second array.

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- 5. The deformable mirror according to claim 4, a spring for suspending said first array relative to said second array, said spring being attached to said layer.
- 1 6. The deformable mirror according to claim 3, wherein said stationary elements and said movable elements are circular.

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an anchor for supporting said springs.

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1 16. The deformable nimer according to claim 1, wherein said vertical comb drive comprises plurality of cavities and teeth interdigitally mounted with said cavities, said reflective surface being attached to said teeth.

The deformable mirror according to claim 16, further comprising a top layer between the teeth and the reflective surface.

The deformable mirror according to claim 16, further comprising a conductor for individually connecting each tooth of said teeth to a voltage source.

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19. A method of deforming a mirror comprising: attaching the mirror to a vertical comb actuator; and applying a voltage to the vertical comb actuator.

20. The method according to claim 19, wherein said vertical comb drive comprises an array of vertical comb actuators and said applying individually applies voltage to said vertical comb actuators.

NOT PARTY